

### Abstract of the Disclosure

An object model has a hierarchical structure composed of a data model representing an attribute structure as a template, an object model as a higher model than the data model, a role model as a higher model than the object model, the role model representing the content of a process to be executed in the environment as a set of a plurality of object models, and a process model as the highest model, the process model defining a dynamic process cooperatively executed by a plurality of role models as one process. In addition, a reference model that is orthogonal to the hierarchical structure and that accomplishes a basic service is used.